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Based on Form PTO-1449
(3/90)

LIST OF REFERENCES CITED BY APPLICANT
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ATTY. DOCKET NO.	SERIAL NO.
454312-3150	09/508,487
APPLICANT: Sven Bergstrom	
FILING DATE: 3/10/00	GROUP: 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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FOREIGN PATENT DOCUMENTS

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	AL							
	AM							
	AN							
	AO							
	AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AQ		Rosa PA, Schwan TG, A specific and sensitive assay for the Lyme disease spirochete Borrelia burgdorferi using the polymerase chain reaction, Journal of Infectious Disease, vol. 160, pp. 1018-1029
	AR		U.S. Application Serial No. 08/373,455 filed January 17, 1995
	AS		
	AT		
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EXAMINER: M Swartz

DATE CONSIDERED: 12-20-01

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APPLICANT: Sven Bergstrom

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3/10/00	1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MZ	AA	3,791,932	2/12/74	Schurrs et al.			
	AB	3,949,064	4/6/76	Bornstein et al.			
	AC	4,174,384	11/13/79	Ullman et al.			
	AD	4,358,535	11/9/82	Falkow et al.			
	AE	4,554,101	11/19/85	Hopp			
	AF	4,578,770	3/25/86	Mitani			
	AG	4,596,792	6/24/86	Vyas			
	AH	4,599,230	7/8/86	Milich et al.			
	AI	4,599,31	7/8/96	Milich et al.			
	AJ	4,601,903	7/22/86	Frasch			
	AK	4,603,102	7/29/86	Himmelmann et al.			
	AL	4,608,251	8/26/86	Mia			
	AM	5,411,732	5/2/95	Lowenadler et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	AN	0 036 776 B1	9/30/81	EPO				
	AO	0 243 333 A2	10/28/87	EPO				
	AP	0 366 238	5/2/90	EPO				
	AQ	WO 88/01875	3/24/88	WIPO				
	AR	WO 90/04411	5/3/90	WIPO				
	AS	WO 93/08299	4/23/930	WIPO				

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AT		Adam T, Gassmann GS, Rasiah C, Göbel UB. 1991. Phenotypic and genotypic analysis of *Borrelia burgdorferi* isolates from various sources. Infection and Immunity, 59: 2579-2585.
AU		Adelman JP, Hayflick JS, Vasser M, Seeburg PH. 1983. In vitro deletional mutagenesis for bacterial production of the 20,000-dalton form of human pituitary growth hormone. DNA. 2(3):183-93.
AV		Anderson JF, Magnarelli LA, McAnich JB. 1988. Journal of Clinical Microbiology, 26: 2209-2212.
AW		Arimitsu Y, Takashima I, Yoshii Z, Higashi Y, Kameyama S, Mizuguchi J. 1991. Journal of Infectious Diseases, 163: 682-683.

EXAMINER	DATE CONSIDERED
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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

MR	AD		Baranton G, Postic D, Saint Girons I, Boerlin P, Piffaretti J-C, Assous M, Grimont PAD. 1992. Delineation of *Borrelia burgdorferi* sensu stricto, *Borrelia garinii* sp. nov., and group VS461 associated with Lyme borreliosis. International Journal of Systematic Bacteriology, 42: 378-383.
	AE		Barbour AG, Burgdorfer W, Grunwaldt E, Steere AC. 1983. Antibodies of patients with Lyme disease to components of the *Ixodes damini* spirochete. Journal of Clinical Investigation, 72: 504-515.
	AF	✓	Barbour AG, Tessier SL, Hayes SF. 1984. Variation in a major surface protein of Lyme disease spirochetes. Infection and Immunity, 45: 94-100.
	AG		Barbour AG. 1984. Immunochemical analysis of Lyme disease spirochetes. The Yale Journal of Biology and Medicine, 57: 581-586.
	AH	✓	Barbour AG. 1986. Polymorphisms of major surface proteins of *Borrelia burgdorferi*. Zbl Bakt Hyg, 263: 83-91.
	AI	✓	Barbour AG. 1988. Laboratory aspects of Lyme borreliosis Clinical Microbiology Reviews, 1: 399-414.
	AJ	✓	Barthold SW, Bockenstedt LK. 1993. Passive immunising activity of sera from mice infected with *Borrelia burgdorferi*. Infection and Immunity, 61: 4696-4702.
	AK	✓	Bergström S, Sjöstedt A, Dotevall L, Kaijser B, Ekstrand-Hammarström B, Wallberg C, Skogman G, Barbour AG. 1991. Diagnosis of Lyme borreliosis by an enzyme immunoassay detecting immunoglobulin G reactive to purified *Borrelia burgdorferi* cell components. European Journal of Clinical Microbiology and Infectious Diseases, 10: 422-427.
	AL	✓	Beaucage SL, Caruthers MM et al. 1981. Tetrahedron Letters, 22: 1859-1862.
	AM	✓	Bolivar F, Rodriguez RL, Greene PJ, Betlach MC, Heyneker HL, Boyer HW. 1977. Construction and characterization of new cloning vehicles. II. A multipurpose cloning system. Gene, 2: 95-113.
	AN	✓	Bruckbauer HR, Preac-Mursic V, Fuchs R, Wilske B. 1992. Cross reactive proteins of *Borrelia burgdorferi*. European Journal of Clinical Microbiology and Infectious Diseases, 3: 224-232.
	AO	✓	Burgdorfer W, Barbour AG, Hayes SF, Benach JL, Grunwaldt E, Davis JP. 1983 Lyme disease - a tick borne spirochetosis
	AP	✓	Burman N, Bergström S, Restrepo BI, Barbour AG. 1990. The variable antigens Vmp7 and Vmp21 of the relapsing fever bacterium *Borrelia hermsii* are structurally analogous to the VSG proteins of the African trypanosome. Molecular Microbiology, 4: 1715-1726.
	AQ	✓	Canica MM, Nato F, duMerle L, Mazie JC, Baranton G, Postic D. 1993. Monoclonal antibodies for identification of Borrelia afzelii sp. Nov. associated with late cutaneous manifestations of Lyme borreliosis. Scandinavian Journal of Infectious Diseases, 25: 441-448

EXAMINER	DATE CONSIDERED
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	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DMS	AD	✓	Chang AC, Nunberg JH, Kaufman RJ, Erlich HA, Schimke RT, Cohen SN. 1978. Phenotypic expression in E. coli of a DNA sequence coding for mousedihydrofolate reductase. Nature. 275(5681):617-24,
	AE	✓	Coleman JL, Benach JL. 1987. Isolation of antigenic components from the Lyme disease spirochete: their role in early diagnosis. Journal of Infectious Diseases, 155: 756-765.
	AF	✓	Craft JE, Grodzicki RL, Steere AC. 1984. Antibody response in Lyme disease: evaluation of diagnostic tests. Journal of Infectious Diseases, 149: 789-795.
	AG	✓	Crea R, Kraszewski A, Hirose T, Itakura K. 1978. Chemical synthesis of genes for human insulin. Proceedings of the National Academy of Sciences USA. 75(12):5765-5769.
	AH	✓	Dressler F, Whalen JA, Reinhardt BN, Steere AC. 1993. Western blotting in the serodiagnosis of Lyme disease. The Journal of Infectious Diseases, 167: 392-400.
	AI	-	Eichenlaub R. 1979. Mutants of the mini-F plasmid pML31 thermosensitive in replication. Journal of Bacteriology, 138: 559-566.
	AJ	✓	Erdile LF, Brandt M-N, Warakomski DJ, Westrack GJ, Sadziene A, Barbour AG, Mays JP. 1993. Role of attached lipid in immunogenicity of *Borrelia burgdorferi* OspA. Infection and Immunity, 61: 81-90.
	AK	✓	Ferdows MS, Barbour AG. 1989. Megabase-sized linear DNA in the bacterium *Borrelia burgdorferi*, the Lyme disease agent. Proceedings of National Academy of Science, 86: 5969-5973.
	AL	✓	Fiers W, Contreras R, Haegemann G, Rogiers R, Van de Voorde A, Van Heuverswyn H, Van Herreweghe J, Volckaert G, Ysebaert M. 1978. Complete nucleotide sequence of SV40 DNA. Nature. 273(5658):113-20.
	AM	✓	Fikrig E, Barthold SW, Marcantonio N, DePonte K, Kantor FS, Flavell RA. 1992. Roles of OspA, OspB, and flagellin in protective immunity to Lyme borreliosis in laboratory mice. Infection and Immunity, 60: 657
	AN	✓	Fikrig E, Barthold SW, Marcantonio N, DePonte K, Kantor FS, Flavell RA. 1992. Roles of OspA, OspB, and flagellin in protective immunity to Lyme borreliosis in laboratory mice. Infection and Immunity, 60: 657
	AO	✓	Fraser CM, Casjens S, Huang WM, Sutton GG, Clayton R, Lathigra R, White O, Ketchum KA, Dodson R, Hikey EK, Gwinn M, Doughery B, Tomb JF, Fleischmann RD, Richardson D, Peterson J, Kervalage AR, Quackenbush J, Salzberg S, Hanson M, van Vugt R, Palmer N, Adams MD, Gocayne J, Venter JC et al., 1997. Genomic sequence of a Lyme diseases spirochaete, *Borrelia burgdorferi*. Nature, 390: 580-586.
	AP	✓	Gassmann GS, Jacobs E, Deutzmann R, Göbel UE. 1991. Analysis of *fla* gene of *Borrelia burgdorferi* GeHo and antigenic characterization of its gene product. Journal of Bacteriology, 173: 1452-1459.

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DMSwart	12-20-01

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APPLICANT: Sven Bergstrom

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

MH	AD	✓	Goeddel DV, Heyneker HL, Hozumi T, Arentzen R, Itakura K, Yansura DG, Ross MJ, Miozzari G, Crea R, Seeburg PH. 1979. Direct expression in Escherichiacoli of a DNA sequence coding for human growth hormone. Nature. 281(5732):544-548.
	AE	✓	Goodman JL, Jarkovich P, Kramber JM, Johnson RC. 1991. Molecular detection of persistent Borrelia burgdorferi in the urine of patients with active Lyme disease. Infection and Immunity, 59: 269-278.
	AF	✓	Grodzicki RL, Steere AC. 1988. Comparison of immunoblotting and indirect enzyme-linked immunosorbent assay using different antigen preparations for diagnosing early Lyme disease. Journal of Infectious Diseases, 157: 790-797.
	AG	✓	Hess et al. 1968. Advances in Enzyme Regulation, 7: 149-166.
	AH	✓	Hitzeman RA, Clarke L, Carbon J. 1980. Isolation and characterization of the yeast 3-phosphoglycerokinase gene (PGK) by an immunological screeningtechnique. Journal of Biological Chemistry. 255(24):12073-12080.
	AI	✓	Holland MJ, Holland JP. 1978. Isolation and identification of yeast messenger ribonucleic acids coding for enolase, glyceraldehyde-3-phosphate dehydrogenase,and phosphoglycerate kinase. Biochemistry. 17(23):4900-4907.
	AJ	✓	Honavar N, Schaible UE, Galanos C, Wallich R ansd Simon MM. 1994. A 14,000 MW lipoprotein and a glycolipid-like structure of *Borrelia burgdorferi* induce proliferation and immunoglobulin production in mouse B cells at high frequencies. Immunology 82: 389-396.
	AK	✓	Hopp TP, Woods KR. 1981. Proceedings of the National Academy of Sciences USA, 78:3824-3828
	AL	✓	Itakura K, Hirose T, Crea R, Riggs AD, Heyneker HL, Bolivar F, Boyer HW. 1977. Expression in Escherichia coli of a chemically synthesized gene for the hormone somatostatin. Science. 198(4321):1056-63,
	AM	✓	Jameson BA, Wolf H. 1988. Computer Applications in the biosciences, 4:181-186.
	AN	✓	Jones EW. 1977. Proteinase mutants of Saccharomyces cerevisiae. Genetics, 85(1):23-33.
	AO	✓	Jonsson M, Noppa L, Barbour AG, Bergström S. 1992. Heterogeneity of outer membrane proteins in *Borrelia burgdorferi*: comparison of *osp* operons of three isolates of different geographic origins. Infection and Immunity
	AP	✓	Katona LI, Beck G and Habicht GS. 1992. Purification and immunological characterization of a major low-molecular-weight lipoprotein from *Borrelia burgdorferi*. Infect. Immun., 60: 4995-5003.

EXAMINER: MH Swartz

DATE CONSIDERED: 12-20-01

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LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Sven Bergstrom	RECEIVED FEB 14 2001
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U.S. PATENT DOCUMENTS

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AD		Kingsman AJ, Clarke L, Mortimer RK, Carbon J. 1979. Replication in Saccharomyces cerevisiae of plasmid pBR313 carrying DNA from the yeast trpl region. Gene. 7(2):141-52.
	AE		Kryuchechnikov VN, Korenberg EI, Scherbakov SV, Kovalevsky YV, Levin ML. 1988. Identification of *Borrelia* isolated in the USSR from *Ixodes persulcatus schulze* ticks. Journal of Microbiology, Epidemiology and Immunobiology, 12: 41-44 (this reference is in Russian. Please note the English language abstract and advise, if a full translation is needed).
	AF		Kyte J, Doolittle RF. 1982. Journal of Molecular Biology, 157:105-132.
	AG		Laemmli UK. 1970. Nature 227:680-685
	AH		Lebech AM, Hindersson P, Vuust J, Hansen KJ. 1991. Comparison of in vitro culture and polymerase chain reaction for detection of Borrelia burgdorferi in tissue from experimentally infected animals. Journal of Clinical Microbiology, 29: 731-737.
	AI		Luft BJ, Jiang W, Munoz P, Dattwyler RJ Gorevic PD. 1989. Biochemical and immunological characterization of the surface proteins of *Borrelia burgdorferi*. Infection and Immunity, 57: 3637-3645.
	AK		Luke CJ, Carner K, Liang X, Barbour AG. 1997. An OspA-based DNA Vaccine protects mice against infection with *Borrelia burgdorferi*. The Journal of Infectious Diseases, 175:91-97.
	AL		Löwenadler B, Jansson B, Paleus S, Holmgren E, Nilsson B, Moks T, Palm G, Josephson S, Philipson L, Uhlén M. 1987. A gene fusion system for generating antibodies against short peptides. Gene, 58: 87-97.
	AM		Ma B, Christen B, Leung D, Vigo-Pelfrey C. 1992. Serodiagnosis of Lyme borreliosis by Western immunoblot: reactivity of various significant antibodies against *Borrelia burgdorferi*. Journal of Clinical Microbiology, 30: 370-376.
	AN		Magnarelli LA., Anderson JF, BarbourAG. 1989. Enzyme-linked immunosorbent assays for Lyme disease: reactivity of subunits of *Borrelia burgdorferi*. Cross-reactivity in serologic tests for Lyme disease and other spirochetal infections. Journal of Infectious Diseases, 159: 43-49.
	AO		Magnarelli LA., Anderson JF, Johnson RC. 1987. Cross-reactivity in serologic tests for Lyme disease and other spirochetal infections. Journal of Infectious Diseases, 156: 183-188.
	AP		Magnarelli LA.,Miller JN, Anderson JF, Riviere GR. 1990. Cross-reactivity of nonspecific treponemal antibody in serologic tests for Lyme disease. Journal of Clinical Microbiology, 28: 1276-1279.

EXAMINER	DATE CONSIDERED
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	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AD	/	Marconi RT, Garon CF. 1992. Phylogenetic analysis of the genus *Borrelia*: a comparison of North American and European isolates of *Borrelia burgdorferi*. Journal of Bacteriology, 174: 241-244.
	AE	/	Marconi RT, Konkel ME, Garon CF. 1993. Variability of *osp* genes and gene products among species of Lyme disease spirochetes. Infection and Immunity, 61: 2611-2617.
	AF	/	Marconi RT, Samuels DS, Schwan TG, Garon CF. 1993. Identification of a protein in several *Borrelia* species which is related to OspC of Lyme disease spirochetes. Journal of Clinical Microbiology, 31: 2577-2583.
	AG	/	Matsudaira P. 1987. Sequence from picomole quantities of proteins electroblotted onto polyvinylidene difluoride membranes. Journal of Biological Chemistry, 262: 10035-10038.
	AH	/	Messing et al. 1981. Third Cleveland Symposium on Macromolecules and Recombinant DNA, Ed. A Walton, Elsevier, Amsterdam.
	AI	/	Nielsen P E *et al.*, 1991, Science 254: 1497-1500.
	AK	/	Norris SJ, Carter CJ, Howell JK, Barbour AG. 1992. Low-passage-associated proteins of *Borrelia burgdorferi* B31: Characterization and molecular cloning of OspD, a surface exposed, plasmid-encoded lipoprotein. Infection and Immunity, 60: 4662-4672.
	AL	/	Norton Hughes CA, Engstrom SM, Coleman LA, Kodner CB, Johnson RC. 1993. Protective immunity is induced by a *Borrelia burgdorferi* mutant that lacks OspA and OspB. Infection and Immunity, 61: 5115-5122 .
	AM	/	Olsén B, Jaenson TGT, Noppa L, Bunikis J, Bergström S. 1993. A Lyme borreliosis cycle in seabirds and *Ixodes uriae* ticks. Nature, 362: 340-342.
	AN	/	Porcella SF; Popova TG, Akins DR, Li M, Radolf JD, Norgard MV. 1996. Borrelia burgdorferi supercoiled plasmids encode multicopy tandem reading frames and a lipoprotein gene family. Journal of Bacteriology. 178: 3293-3307.

EXAMINER: /MSwan/ DATE CONSIDERED: 12-20-01

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	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DM9	AD		Preac-Mursic V, Wilske B, Patsouris E, Jauris S, Will G, Soutschek E, Reinhardt S, Lehnert G, Klockmann U, Mehraein P. 1992. Active immunization with pC protein of *Borrelia burgdorferi* protects gerbils against *Borrelia burgdorferi* infection. Infection, 20: 342-349.
	AE		Raoult D, Hechemy KE, Baranton G. 1989. Crossreaction with *Borrelia burgdorferi* antigen of sera from patients with human immunodeficiency virus infection, syphilis, and leptospirosis. Journal of Clinical Microbiology, 27: 2152-2155.
	AF		Rhan DW, Malavista SE. 1991. Annals of Internal Medicine, 114: 472-481.
	AG		Remington: The Science and Practice of Pharmacy, 19th ed., Gennaro, AR, 1995 (this is a general textbook and need not, in our opinion, be filed with the USPTO)
	AH		Šadziene A, Thompson PA, Barbour AG. 1993. In vitro inhibition of *Borrelia burgdorferi* growth by antibodies. Journal of Infectious Diseases, 167: 165-172.
	AI		Šadziene A, Thomas DD and Barbour AG. 1994. Borrelia burgdorferi mutant lacking Osp: Biological and immunological characterization. Infection and Immunity, 63: 1573-1580.
	AK		Sambri V, Moroni A, Massaria F, Brocchi E, De Simone F and Cevenini R. 1991. Immunological characterization of a low molecular mass polypeptidic antigen of *Borrelia burgdorferi*. FEMS Microb. Immunol. 76: 345-350
	AL		Sambrook J, Fritsch EF, Maniatis T. 1989. Molecular cloning: a laboratory manual, 2nd ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.
	AM		Schaible UE, Kramer MD, Eichmann K, Modolell M, Museteanu C, Simon MM. 1990. Monoclonal antibodies specific for the outer surface protein A (OspA) of Borrelia burgdorferi prevent Lyme borreliosis in severe combined immunodeficiency (scid) mice. Proceedings of the National Academy of Sciences

EXAMINER: [signature]

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	AD		Schmid GP. 1985. Reviews of infectious diseases, 7: 41-49.
	AE	✓	Shanafelt MC, Hinderson P, Soderberg C, Mensi N, Turck CW, Webb D, Yssel H, Peltz G. 1991. T cell and antibody reactivity with the Borrelia burgdorferi 60-kDa heat shock protein in Lyme arthritis. Journal of Immunology, 146: 3985-3992.
	AF		Siebenlist U, Simpson RB, Gilbert W. 1980. E. coli RNA polymerase interacts homologously with two different promoters. Cell. 20(2):269-281.
	AG		Simpson WJ, Schrumpf ME, Schwan TG. 1990. Reactivity of human Lyme borreliosis sera with a 39-kilodalton antigen specific to *Borrelia burgdorferi*. Journal of Clinical Microbiology, 28: 1329-1337.
	AH		Steere AC, Malavista SE, Syndman DR. 1977. Arthritis and reuhmatism, 20: 7-17.
	AI		Steere AC, Taylor E, Wilson ML, Levine JF, Spielman A. 1986. Journal of Infectious Diseases, 154: 295-300.
	AK		Steere AC. 1989. Lyme disease. New England Journal of Medicine, 321: 586-596.
	AL		Stinchcomb DT, Struhl K, Davis RW. 1979. Isolation and characterisation of a yeast chromosomal replicator. Nature. 282(5734):39-43.
	AM		Telford SR, Fikrig E, Barthold SW, Rosa Brunet L, Spielman A, Flavell RA. 1993. Protection against antigenically variable *Borrelia burgdorferi* conferred by recombinant vaccines. Journal of Experimental Medicine, 178: 755-758.
	AN		Theisen M, Frederiksen B, Lebech A-M, Vuust J, Hansen K. 1993. Polymorphism in *ospC* gene of *Borrelia burgdorferi* and immunoreactivity of OspC protein: implications for taxonomy and for use of OspC protein as a diagnostic antigen. Journal of Clinical Microbiology, 31: 2570-2576.
	AO		Tschumper G, Carbon J. 1980. Sequence of a yeast DNA fragment containing a chromosomal replicator and the TRP1 gene. Gene. 10(2):157-66.

EXAMINER	DATE CONSIDERED
	10-20-01

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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ATTY. DOCKET NO.	SERIAL NO.
454312-3150	09/508,487

LIST OF REFERENCES CITED BY APPLICANT
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Sven Bergstrom	
FILING DATE	GROUP
3/10/00	1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AD		Ulmer JB, Donnelly JJ, Parker SE, Rhodes GH, Felgner PL, Dwarki VJ, Gromkowski SH, Deck RR, DeWitt CM, Friedman A. et al. 1993. Heterologous protection against influenza by injection of DNA encoding a viral protein. Science. 259(5102):1745-1749.
	AE		von Heijne G. 1986. A new method for predicting signal sequences cleavage sites. Nucleic Acid Research, 11: 4683-4690.
	AF		Wallich R, Moter SE, Simon MM, Ebnet K, Heiberger A, Kramer MD. 1990. The Borrelia burgdorferi flagellum-associated 41-kilodalton antigen (flagellin): molecular cloning, expression, and amplification of the gene. Infection and Immunity, 58: 1711-1719.
	AG		Wilske B, Preac-Mursic V, Jauris S, Hofman A, Pradel I, Soutschek E, Schwab E, Will G, Wanner G. 1993. Immunological and molecular polymorphisms of OspC, an immunodominant major outer surface protein of *Borrelia burgdorferi*. Infection and Immunity, 61: 2182-2191
	AH		Wilske B, Preac-Mursic V, Schierz G, Busch KV. 1986. Immunochemical and immunological analysis of European *Borrelia burgdorferi* strains. Zbl Bakt Hyg, 263: 92-102.
	AI		Zingg BC, Anderson JF, Johnson RC, LeFebvre RB. 1993. Comparative analysis of genetic variability among *Borrelia burgdorferi* isolates from Europe and the United States by restriction enzyme analysis, gene restriction fragment length polymorphism, and pulse-field gel electrophoresis. Journal of Clinical Microbiology, 31: 3115-3122.
	AK		Åsbrink E, Hovmark A, Hederstedt B. 1984. The spirochetal etiology of acrodermatitis chronica atrophicans Herxheimer. Acta Dermatologica et Venereologica, 64: 506-512.
	AL		
	AM		
	AN		
	AO		

EXAMINER	DATE CONSIDERED
	12-20-01

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LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Sven Bergstrom	
	FILING DATE 3/10/00	GROUP 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AE	WO 95/35119	12/05/95	WIPO				
	AF	EP 054057	05/05/93	Europe				
	AG	WO 95/12675	05/11/95	WIPO				

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AH	✓	Wilske B, Preac-Mursic V, Jauris S, Hofman A, Pradel I, Soutschek E, Schwab E, Will G, Wanner G, 1993. Immunological and molecular polymorphisms of OspC, an immunodominant major outer surface protein of *Borrelia burgdorferi*. Infection and Immunity, 61: 2182-2191
	AI		Shanafelt MC, Hinderson P, Soderberg C, Mensi N, Turck CW, Webb D, Yssel H, Peltz G, 1991. T cell and antibody reactivity with the Borrelia burgdorferi 60-kDa heat shock protein in Lyme arthritis. Journal of Immunology, 146: 3985-3992
	AJ	/	Norton Hughes CA, Engstrom SM, Coleman LA, Kodner CB, Johnson RC., 1993. Protective immunity is induced by a *Borrelia burgdorferi* mutant that lacks OspA and OspB. Infection and Immunity, 61: 5115-5122
	AK		Messing et al., 1981. Recombinant DNA, Third Cleveland Symposium on Macromolecules, A.G. Walton, Elsevier Scientific Publishing Company, Amsterdam
	AL		Feng, S. et al. "Characterization of two genes, p. 11 and p. 5, on the Borrelia burgdorferi 49-kilo base linear plasmid". Biochimica et Biophysica Acta, vol. 1307, no. 3, dated July 17, 1996.
	AM		Fraser et al. Geonomic sequence of a Lyme disease spirochete, Borrelia burgdorferi, EMBL Data Base Empro: AE00117, dated 1997
	AN		Fraser et al. Geonomic sequence of a Lyme disease spirochete, Borrelia burgdorferi, EMBL Data Base Empro: Pir:B70104, dated 1998
	AO		

EXAMINER	DATE CONSIDERED
	12-2001

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